S.ORG®
Rollstuhltechnik

User Manual & Service Book

Mio

We are a company-member of rehaKIND

International Support Group for the
Rehabilitation of Children and Adolescents

Imprint:
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As of 29.05.12
Technical alterations and misprints excepted.

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Inhaltsverzeichnis

1. General Preamble 4
1.1 Preamble 4
1.2 Reception 6
1.3 Specifications 6
1.4 Application 7
1.6 Wheelchair overview 8

2. Safety instructions 9
2.1 General Security Advice 9
2.2 Before every use 9
2.3. How to avoid tipping 10
2.4 Coping with obstacles 10
2.5 Heat and water 11

3. Adjustments 12
3.1 Leg support adjustment 12
3.1.1 Standard leg support 12
The footrest can additionally be set off by up to 6 cm by turning the clamping parts by 180° and/ or by screwing them together with the front bore holes of the footrest. 12
3.1.2 Leg support hinged, 13
central mounting 13
3.2 Seat height & seat inclination 14
3.3 Seat width 14
3.4 Centre of gravity 16
3.5 Back angle 16
3.6 Seat depth 17
3.7 Back height 17
3.8 Adjustment of caster and rear wheel 17
3.9. Standard brake 18
3.9.2 Attendant brake (optional) 19
3.11 Head rest (optional) 20
3.12 Abduction wedge (optional) 21
3.13 Pelvic belt 21

4. Handling/Operation 22
4.1 Getting in and out 22
4.2 Extendable push handles / push bar (optional) 23
4.3 Anti-tipper 25
4.4 Wheels with quick-release-axles 25
4.5 Foot rest, hinged (optional) 26
4.8 Therapy table (optional) 28
4.9 Outdoor Front End (optional) 29
4.11 Safety of transportation 30
4.12 Transportation of the wheelchair as seat in a passenger vehicle 30

5 Maintenance 30
5.1 Cleaning and tendance 30
5.2 Disinfection 31
5.3 Inspection 31
5.4 Checklist and maintenance 32
5.5 Checklist yearly inspection 33
5.7 Service 34
5.8 Replacement parts 34
5.9 Disposal 34
5.10 Reuse 34
5.11 Tyre change 34

6. Technical data 35
6.1 Measures and dimensions 35
6.2 Meaning of labels 36

7. Warranty 37

8. Service book 40
8.1 Maintenance due every 6 months 40
8.2 Yearly inspection 41

1. GENERAL REFERENCES

1.1 Preamble

Mio will be your child's reliable companion in their everyday life. For this purpose, your child has to familiarise with the wheelchair because, as any other technical device, it may hold manifold dangers if used inappropriately.

The following user manual is divided up into 5 function-specific chapters: 1. Preamble, 2. Safety Instructions, 3. Adjustments, 4. Handling, 5. Maintenance. Chapters 6-8 discuss technical data and warranty conditions.

Chapters 2 and 4 are supposed to acquaint you and your child with the wheelchair and to explain the daily handling. Chapter 3 is directed EXCLUSIVELY to your rehabilitation engineer since this chapter deals unexceptionally with safety relevant points. So please, in your own interest, leave the adjustments to a qualified medical supply store.

Looking back on our long-standing experience as one of the leading manufacturers in childhood rehabilitation, we work most carefully and thoroughly during all stages of development and construction. This enables us to guarantee you the highest standard of quality, individuality and safety. Through our certification according to ISO 9001:2008 we commit ourselves to continuously extend this quality standard.

All materials used for the wheelchair are flame resistant.
For reasons of simplification, in the following chapters we will only refer to you; however the information given is all the more important for your child since it contains important safety instructions.

ATTENTION

As the current owner of the wheelchair, please keep this manual in a safe place and make sure all work done on your wheelchair by your medical supply store is documented in detail in the respective chapter at the end of this manual.
In case of a reuse of the wheelchair, this manual serves as an important source of information for your health insurance fund. Additionally, it provides the verification of regular inspections, which might be important in the event of warranty claim.

Therefore, please keep this manual with the wheelchair and hand it back to your health insurance in case of return of your Mio.

PLEASE NOTE

This user manual is intended for both you and your rehabilitation engineer. It contains instructions on the correct adjustment of the medical aid which may exclusively be conducted by a qualified member of the specialised trade (cf. chapter 3).

Moreover, it is supposed to help you get acquainted with the handling of your new Mio and to avoid accidents (cf. chapter 4). This manual covers all possible equipment options that might be installed on a Mio and thus may contain chapters that do not conform to your particular configuration.

ATTENTION

Please read and mind this user manual with its general safety instructions carefully before putting Mio into service for the first time.

If you have any questions, the sanitary trade of your confidence or our competent team will be glad to help you.
Service line +49 07254 / 9279-0
We appreciate your trust!

1.2 Reception

Each SORG wheelchair is mounted and tested for functional efficiency and freedom from defects by our specialists and is then packaged in special paperboard containers by our shipping experts. Thus every SORG wheelchair leaves our factory in a flawless condition. The wheelchair has been constructed according to your ordering information; the technical factory delivers your wheelchair ready for use and adjusted to your needs.

PLEASE NOTE

For judicial reasons, we nevertheless need to ask you to check your wheelchair IMMEDIATELY after reception and in the presence of the bearer for any damage that might have occurred during transport. Please note that, according to the legal situation, belatedly recorded damage cannot be asserted, neither to the forwarding company nor to us!

Please do not sign the acknowledgement of receipt of the forwarding company before careful inspection.

The necessary steps and measures for individual adjustments are stated in chapter 3 "Adjustments".

ATTENTION

For safety reasons, all adjustments described are to be conducted exclusively by a specialised trade member qualified for this purpose.

PLEASE NOTE

For ecological reasons, we kindly ask you to keep the packaging in case transportation becomes necessary at a later point.

PLEASE NOTE

Information for the visual impaired

The user manual is available for download on the website www.sorgrollstuhltechnik.de as a pdf-file. The print may be enlarged, or – if using the German version installed on your computer – you can have it read out to you in the Adobe Reader.

1.3 Specifications

Mio is a small, lightweight activity wheelchair. It is available in two rigid frame versions (Retro and Taurus) with adjustable seat inclination, back adjustable in angle, V-shaped abduction and a fixed camber of 9°. It is suitable for children from 12 months and offers the option to have the back height, seat depth and seat width to adapt to the growth of your child. At the same time, it is very lightweight, versatile, smooth running and perfectly adjustable to the physiognomic conditions of the user. It is available with seat and back cushions as well as with anatomically moulded back and seat parts.

It is indexed for:

- Osteogenesis Imperfecta (OI)
- all forms of neuromuscular diseases
- all forms of muscular atrophy
- all forms of muscular dystrophy
- muscular trunk hypotony
- Cerebral Palsy (CP)
- Spina Bifida (SB)
- spinal muscle atrophy (SMA)
- progressive muscle dystrophy (PMD)
- reduced or absent control of the head
- changes in musculature
- skeletal deformation
- to develop and activate the entire tonicity
- to develop and strengthen the entire skeleton
- for reactivation after grave trauma
- for stabilisation of scoliosis
- for regularisation of dyskinesia

Mio is counter indexed for:

- tonus dysregularisation
- perception disorders
- strong imbalance
- loss of limbs on both arms
- joint contractures and damages on both arms
- inability to sit
- reduced or insufficient vision

The intended maximum payload of 50 kg (approx. 110 lbs) must not be excessed.

From SW 18 cm (approx. 7.1 in) and up to a maximum payload of 50 kg (approx. 110 lbs), there are 2 frame versions (Retro and Taurus) in 3 different frame sizes available; these are dependent on the wheel size chosen:

Frame size 1 (20" wheel)
Frame size 2 (22" wheel)
Frame size 3 (24" wheel)

1.4 Application

Mio is suitable for both indoor and outdoor use. It is designed exclusively for the walking impaired or abatic child or adolescent to whom the wheelchair has been adjusted by a qualified specialist, for individual use in self-transportation or transportation with an assistant.

ATTENTION
The transportation of a person may only be conducted on solid surface and using a seat unit or a seat shell. The wheelchair does not serve as a means of transportation for goods or the like. It is not intended to be used as a seat in a motor vehicle.

1.5 Accessory and attachment drives

Accessory or attachment drives may only be mounted on models we have released for this purpose.

ATTENTION
The mounting of additional drives is to be conducted by the producer of the respective system and entirely on their responsibility.

1.6 Wheelchair overview

The most important components

1. Frame
2. Seat plate
3. Seat cushion
4. Locking brake - operating element
5. Wheel guards
6. Side part
7. Back cushion
8. Locking brake - pressing element
9. Foot rest holder
10. Foot rest
11. Caster fork
12. Caster

13. Push handles
14. Moulded firm back
15. Clamp lever for push handle adjustment
16. Anti-tipper
17. Quick-release-axle
18. Reflector
19. Handrims
20. Rear wheels

2. Safety instructions
2.1 General Security Advice

Please make sure to read this user manual and the safety instructions very carefully before taking your new Mio into service. It is of utmost importance that both the user and their assistant are able to both understand and realise all instructions. Since it is not possible to list all dangers that may possibly occur under different circumstances, please make good use of caution and mind whenever you are using your wheelchair!

Please use Mio exclusively according to the specifications described in chapters 1.3 and 1.4. If used otherwise and/or inappropriately, the wheelchair may considerably endanger you and your surroundings. Furthermore, this may lead to the expiry of our guarantee and product liability!

Please make yourself and your child acquainted with the respective functions, specific characteristics, and the operation of your wheelchair. Take sufficient time for this and please make sure to conduct your first driving practices with the support of an experienced assistant.

It is very important that – in the presence of an experienced assistant – you test the stability of your new wheelchair to both sides, to the front, and to the back. To do this, please slowly lean as far as you can to each side, front, and back while sitting in your wheelchair in order to, for instance, pick up an object from the ground. Attentively observe when exactly the wheelchair starts tipping over and memorize this point well.

To keep your wheelchair permanently safe and functional, please consider the instructions on handling (chapter 4) and maintenance (chapter 5).

Do not ever leave your wheelchair unattended – neither empty nor occupied! The brakes might loosen unintentionally and endanger you, your child, and your surroundings considerably. Always position your wheelchair against a wall or a corner so it cannot roll away.

Please do not by any means conduct adjustments, maintenance and/or repair work by yourself, but always turn to the medical supply store of your confidence whose trained staff has been introduced proficiently to the conduction of this work and is equipped with the necessary tools.

For functional reasons, your hands are placed on rotating parts (i.e. the rear wheels) while driving your wheelchair.
To avoid injuring your hands, please make sure not to reach into the spokes of the rear wheels or the space between rear wheel and lever brake. Profile wheels with integrated handrims or spoke covers (optional devices) reduce the risk of finger injuries.

2.2 Before every use

The functional efficiency of the locking brake (cable brake and the brake for the assistant) is dependent on:

- **correct inflation pressure**
- **intact bowden wire**
- **non-worn-out braking bolts**.

Please check the braking effect of the cable brake before every use. The cable brake can only function properly with sufficient air pressure and flawless tyre profile of the rear wheels.

Check the cables of the cable brakes for damages before every use. Damaged cables are to be exchanged immediately.

Check the correct tyre inflation pressure according to the indication on the tyre equipment. By the way: it will be a lot easier to drive and manoeuvre your wheelchair with the correct air pressure of caster and rear wheels.

Please check the safe and firm fit of the quick-release-axles: If the quick-release-axle button is not pressed, the rear wheels or casters must not be removable. The axles need to be cleaned from dust and fluff regularly.

Please conduct a general visual inspection to duly discover and repair possible damage that might lead to endangerment.

2.3. How to avoid tipping

Avoid using the foot rest when getting in or out of your wheelchair for it might tip forward. If possible, please fold the foot rest to the side or to the back in order to get closer to the wheelchair. And make sure that you only conduct this action on firm, even ground and with the locking brake tightened.

Under certain circumstances it might be therapeutically necessary that the child does use the foot rest to get in or out of the wheelchair. In this case, please turn the rear wheels forward to improve the wheelchair's resistance against tipping and do not let your child get in or out without supervision and assistance.

Practice all driving techniques on even ground and only with the support of an experienced assistant at first. Only after that should you try and tackle downgrade and upgrade paths – again, with the support of an experienced assistant.

Avoid putting your wheelchair into bank positions on uneven or sloping ground to prevent it from tipping sidewards! Always drive in right angle from the hillside/the obstacle, never diagonally.

Please avoid extreme adjustments of your wheelchair with a high seat inclination and place the seat back as far at the front as possible to gain safety from tipping. Extreme configurations combined with a disadvantageous posture may provoke the wheelchair to tip, even on level ground.

Please drive downgrade or upgrade paths exclusively with the anti-tipper feature activated. When driving on upgrade paths and offsets, bend the upper part of your body forward as far as possible and drive ramps and upgrades with a pitch or incline of more than 7° (12%) only with the support of an assistant. When driving downgrade paths, please bend your upper body as much to the back as possible.

Adjusting the casters incorrectly or driving too fast (especially on downgrade paths) may lead the casters to judder, which may result in a dangerous and abrupt braking of the wheelchair. Hence, do not change the pre-adjusted position of the casters in the caster fork, drive downgrade paths very slowly and bend the upper part of your body backwards while doing so.

In order to reach for objects on the sides or in front of your wheelchair, please remember your initial stability test and do not lean out too far.

ATTENTION

The locking brake cannot usually be used to brake during driving since this might make your wheelchair halt abruptly with the risk of falling out for the passenger. It is only to be used in that way very limitedly and only be very experienced drivers.

We strongly recommend using anti-tippers to inexperienced and young wheelchair drivers.

Because of the body measurements specific to the user, it might be possible that adjustments of seat and wheel positions beyond the tipping safety limits can be realised on your wheelchair. In this case, the safety from tipping must be valued over the handling characteristics!

2.4 Coping with obstacles

To surmount level differences, ramps or lifts should be used whenever possible. We strongly advise you to surmount stairs only with the aid of two experienced assistants. For this, the safety wheel needs to be deactivated. Please mind that the wheelchair may be held, carried or lifted only on metal parts which are firmly bolted to the frame.

Please note that the rubber caps are merely stuck to the push handles and may loosen under unfavourable circumstances (heat, moisture, etc.).

ATTENTION

Extendable push handles and/or push bars are connected loosely to the wheelchair and may loosen.

Do not use escalators in any case – not even with assistants!!! Department stores and public buildings with escalators should always have suitable lifts available.

Do not rapidly drive towards offsets (e.g. kerb stone edges) as this implies a heightened danger of tipping!

Do not jump from stairs or offsets with your wheelchair! This does not conform to the intended usage of the wheelchair, puts you and your surroundings in serious danger, and may damage your wheelchair heavily.

Please remember to fold your anti-tippers to

the inside while using lifts and lifting plates and while surmounting offsets.

ATTENTION

Before pulling a person seated in a wheelchair backwards over an obstacle via the push handles, please check the push handles in their bracket (stand spring) and the rubber pads on the push handle pipes for firm fit.

2.5 Heat and water

Handrims heat up through strong friction, especially by braking during fast driving or along downgrade paths. Therefore, if you have sensitive skin, we recommend you to wear gloves like those used in race-cycling (with leather palm protection – but **never** woollen gloves) or special wheelchair gloves.

Using the wheelchair in damp locations or in water should be avoided, as this may lead to the corrosion of components, which negatively affects the driving quality and service life of your wheelchair.

Textile components of the wheelchair, such as cushion or plastic are inflammable. Therefore, please keep any ignition sources, particularly lighted cigarettes, away from the wheelchair.

Exposed to direct solar radiation, dark surfaces of the wheelchair (seat, back, clothing guards, etc.) may heat up strongly. To avoid burns, place the wheelchair in a shady place or protect it from direct solar radiation with a blanket (or a similar object).

2.6 Driving in road traffic

Keep in mind that as a driver/passenger in your wheelchair you are a "participant in public traffic" and therefore have to respect the road traffic regulations.

Since your wheelchair does not count as motor vehicle according to legal regulations, you may use pavements driving at walking pace.

In the dark, wear preferably light-coloured clothes or clothes with reflectors. Avoid driving on road surface or bicycle paths.

Your wheelchair is provided with reflectors on the sides and on the back. Regularly check whether they are clean and clearly visible.

To use your wheelchair as a seat in a passenger car, only use means of transportation approved for the transportation of wheelchairs.

ATTENTION

Transporting a person sitting in a wheelchair in a vehicle implies a considerable safety risk for all people involved. We therefore strongly recommend not using the wheelchair as a seat in a passenger car and sitting down on a conventional car seat instead.

During a ride in a vehicle (including public transport), you must not be seated in your wheelchair without a restraint system for a passenger.

If using your wheelchair as a passenger seat in a vehicle cannot be avoided, the regulations according to DIN 75078-2 have to be fulfilled! Please make sure to read chapters 4.10-4.12 "Transportation in a passenger car" (p.30)!

3. Adjustments

The following indications on the adjustments of Mio affect its usage safety! Every technical device inherits safety risks in everyday usage. Therefore, we are pointing out explicitly that all adjustments, reparations, and any other sorts of changes are to be conducted exclusively by the rehab technicians of your medical supply store who have been qualified by us!
Otherwise, you may endanger yourself, your surroundings, and especially children considerably, and, moreover, lose our warranty claim!

ATTENTION
A wheelchair is a medical aid which must be adjusted to the individual situation of your child by your rehab technician in order to obtain the highest therapeutic benefit possible.

ATTENTION
When conducting any adjustments, please make sure to maintain distances between all movable parts (e.g. abduction wedge, etc.) and fixed parts in order to prevent human body parts from clamping in between them.

Guidance values for this purpose are:
Finger area: <5mm or >25 mm
Foot area: <25 mm or >45 mm
Head area: <60 mm or > 250 mm

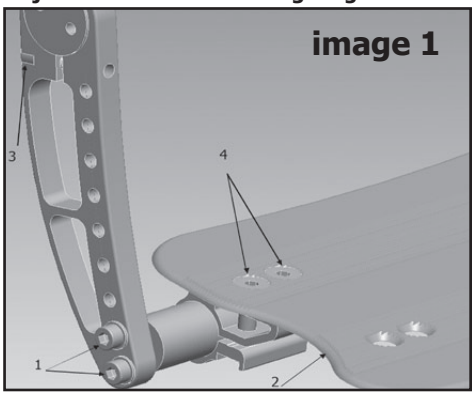
If no other specifications are indicated, the following torques are valid for screw joints:
M5: 5 Nm
M6: 7 Nm
M8: 20 Nm
M10: 25 NM
quick-release-axle fitting: 35 NM

3.1 Leg support adjustment

The leg support is ideally adjusted if the complete thigh rests (with a two finger distance between seat and hollow of knee) evenly on the seat cushion/shells while the leg is standing on the foot rest in a right angle. A foot rest positioned too high leads to a permanently buckled position in the pelvic area. If it is adjusted too low, unpleasant congestions in the thighs might occur.

3.1.1 Standard leg support

Adjustment of the lower leg length



- remove screws (image 1, pos. 1) and loosen screw (image 1, pos. 3) on both sides
- place footrest (image 1, pos. 2) into desired position; make sure the angle adjustment is equal on both sides (cf. scale image 2)
- retighten srews

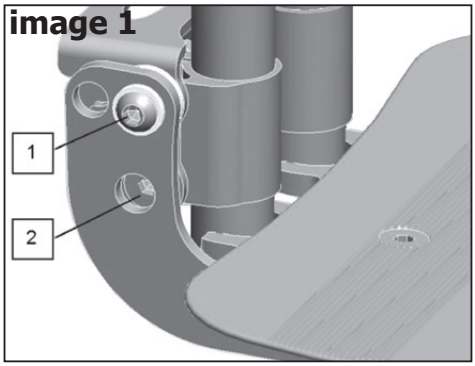
Adjustment of the angle

- loosen screws (image 1, pos. 4) on both sides
- place footrest (image 1, pos. 2) into desired position
- retighten screws

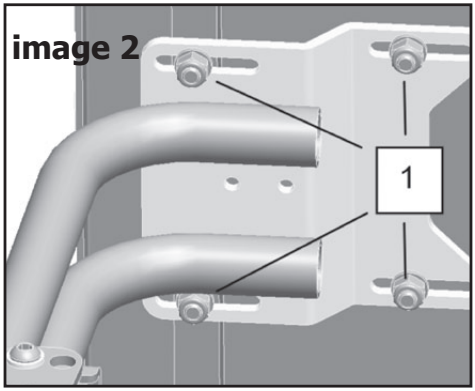
The footrest can additionally be set off by up to 6 cm by turning the clamping parts by 180° and/or by screwing them together with the front bore holes of the footrest.

3.1.2 Leg support hinged, central mounting

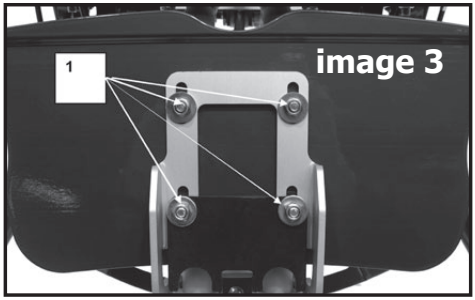
Adjustment of the lower leg length
- loosen screws (image 1, pos. 1 and 2) on both sides
- choose desired position, tighten screws (image 1, pos. 2) firmly
- tighten screws (image 1, pos. 1), make sure that the footrest can still be hinged upwards



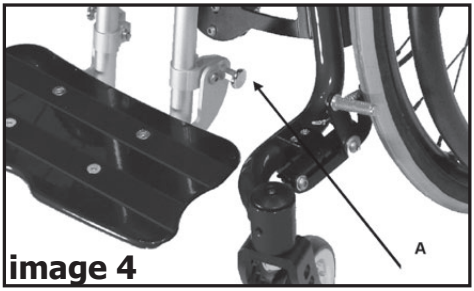
Adjustment of the depth
- loosen screws (image 2, pos. 1)
- place leg support bracket into desired position
- tighten screws (image 2, pos. 4) firmly



Adjustment of the angle
By changing the distance between the footrest and the carrier pipes (image 3, pos. 1), you may change the angle of the footrest by ± 15°.
- loosen screws (pos. 1)
- place footrest into desired position
- tighten screws firmly



Locking device (optional)
- pull out the spring bolts (image 4, pos. A) on both sides, then turn the spring bolt by 90°
- hinge footrest backwards
- again, turn both spring bolts by 90° until they engage into the slot
- to open the interlock, please proceed analogi cally



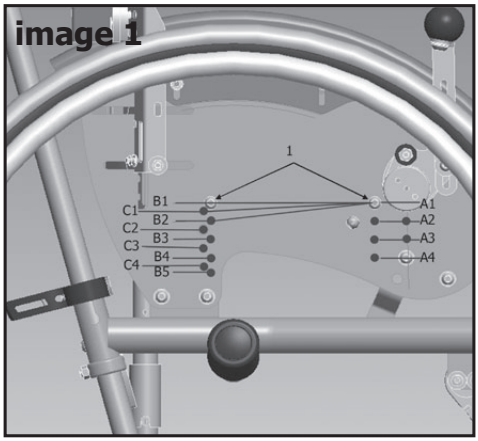
ATTENTION
Do not start your ride until you have made sure that the spring bolt is engaged firmly!

ATTENTION
Please make sure not to bend too far out of the wheelchair when (un-)locking for you may fall out! Please have someone assist you.

3.2 Seat height & seat inclination

By modifying the seat angle support, the seat height may be altered by 4.5 cm in 1.5 cm-steps.

Usually, a strong or light seat inclination is chosen in order to obtain a secure and comfortable sitting position with even distribution of the seat pressure and to straighten up the pelvis. (Differing adjustments may also make sense in individual cases.)



- remove screws (image 1, pos. 1) completely on both sides
- mount seat plate into the desired position
- retighten screw joints

	Seat height front			Seat inclination	
Wheels	20"	22"	24"		
A1	38.5	40.5	43.0	B1	none
				C1	light
				B2	strong
A2	37.0	39.0	41.5	B2	none
				C2	light
				B3	strong
A3	35.5	37.5	40.0	B3	none
				C3	light
				B4	strong
A4	34.0	36.0	38.5	B4	none
				C4	light
				B5	strong

ATTENTION

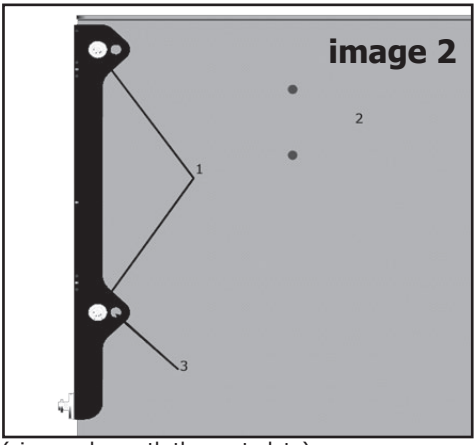
When adjusting the seat height on the front, you should always make sure that you can access tables easily without your knees hitting their edges. Corresponding to the position of the foot rest, the casters must be free to rotate 360°.

3.3 Seat width

The seat width of the wheelchair may be extended by 2 cm via the following four measures:

- setting off the angle support
- setting off the back support angle
- setting off the distance bushes
- adjusting the quick-release-axle adapter

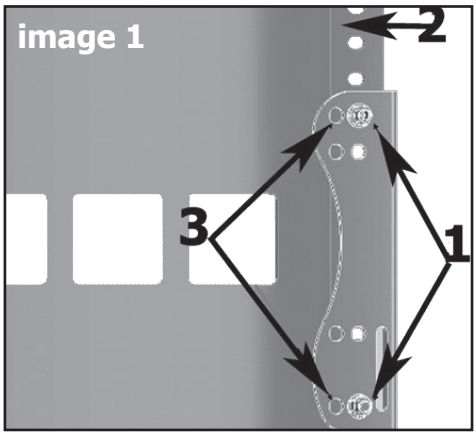
a. Setting off the angle support



(view underneath the seat plate)

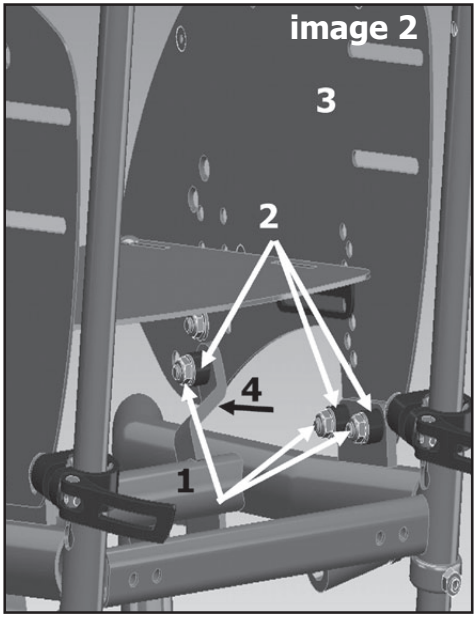
- remove screw joints (image 2, pos. 1) on both sides
- mount seat plate (image 2, pos. 2) into the inner bores of the angle support (image 2, pos. 3)
- tighten screw joints firmly

b. Setting off the back support angle



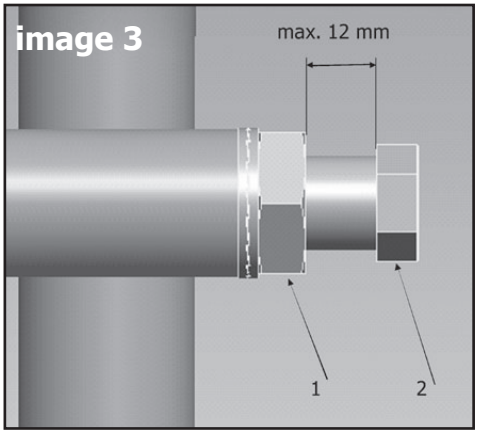
- remove screw joints (image 1, pos. 1) on both sides
- mount back rest (image 1, pos. 2) along the inner bores (image 1, pos. 3) of the back support angle
- tighten screw joints firmly

c. Setting off the distance bushes



- remove screw joints (image 2, pos. 1) and distance bushes (image 2, pos. 2) on both sides
- mount distance bushes between side part (image 2, pos. 3) and side part retainer (image 2, pos. 4)
- tighten screw joints firmly

d. Adjusting the quick-release-axle adapter

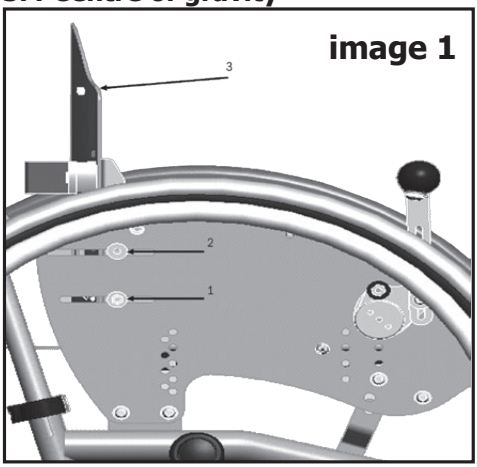


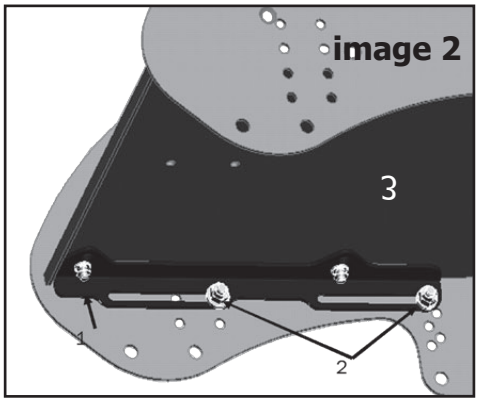
- loosen screw nut (image 3, pos. 1) and unscrew the quick-release-axle adapter (image 3, pos. 2) by about 10 mm
- the distance between quick-release-axle adapter and screw nut must not exceed 12 mm
- retighten screw nut

ATTENTION

It is absolutely vital to check the brakes after adjusting the quick-release-axle adapter. The brake bolt must protrude the centre of the rear wheel.

3.4 Centre of gravity





By moving the back rest (image 1, pos. 3) in the side part, the centre of gravity of the wheelchair may be altered by up to 6.5 cm. The seat support angles (image 2, pos. 1) on the lower surface of the seat plate should be moved to the same extent to maintain the ordered seat depth. When leaving our factory, the wheelchair is preadjusted into a tipping stable position. The further back the back rest is mounted, the more the wheelchair tends to tip backwards. However, it may also be tilted back on 2 wheels more easily. This facilitates, for experienced wheelchair users, to quickly and easily surmount obstacles, as the wheelchair's agility is effectively improved.

ATTENTION

Even if the anti-tipper is activated and there is actually no danger, a beginner may be unsettled or even demotivated if the wheelchair's adjustments make it too prone to tipping!

ATTENTION

Please work carefully, gradually, and only with the aid of an experienced assistant towards the maximum degree of tipping proneness desired for by the user! Read the SAFETY INSTRUCTIONS carefully. (p. 9 ff).

Moving the back rest

- loosen screw joints (image 1, pos. 1+2) on both sides and move back rest (image 1, pos. 3) into desired position (at the same time, adjust back angle, cf. chapter 3.5)
- tighten screw joints firmly
- test new adjustments with the securing support of an assistant!

Moving the seat support angle

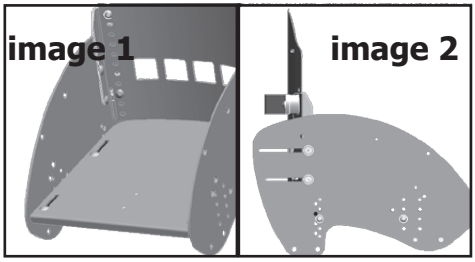
- loosen screw joints (image 2, pos. 2) on both sides and move seat plate (image 2, pos. 3) into desired position (dependent on back rest)
- tighten screw joints

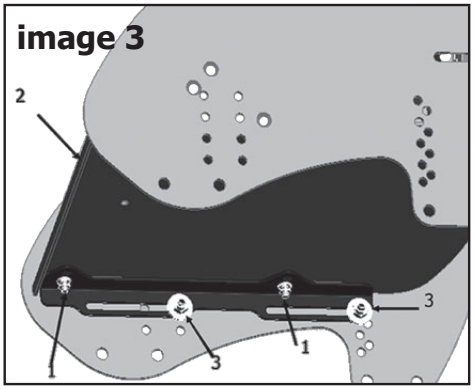
3.5 Back angle

The back angle may be altered continuously by at least +/-10° by moving the back rest in the side part. Please keep in mind that by adjusting the back rest you are also altering the centre of gravity of the wheelchair.

- loosen screw joints (image 1, pos. 2) on both sides and place back rest (image 1, pos. 3) into desired position
- tighten screw joints
- test new adjustments with the securing support of an assistant!

3.6 Seat depth





On the three images above you can see the state of Mio when delivered.

- Image 1: seat plate, back
- Image 2: seat plate, front
- Image 3: seat support angle, front

In this state, the seat depth may be increase continuously by 4 cm by moving the seat plate.

Moving the seat plate

- loosen screw joints (image 3, pos. 1) on both sides and move seat plate (image 3, pos. 2) into the desired position
- tighten screws firmly

The seat depth may be increased further if it is possible to move the seat support angle even further to the front after adjusting the centre of gravity (cf. chapter 3.4).

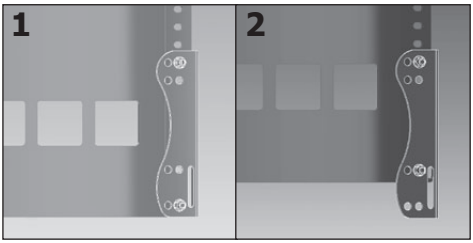
Moving the seat support angle

- loosen screw joints (image 3, pos. 3) on both sides and place seat plate (image 3, pos. 2) into the desired position
- tighten screw joints firmly

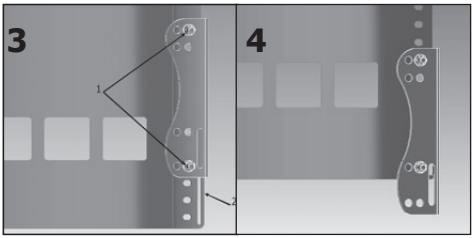
3.7 Back height

In order to provide as much moving space as possible for the arms when driving the wheelchair, the active driver's back height should generally reach to the bottom line of the scapulae.

The upper edge of our firm moulded backs is pulled up by approx. 5 cm in model 3 (and approx. 2 cm in model 1). Thus a longer support of the spine is achieved. Thanks to the curved upper edge of the back sheet plate, however, the scapulae can still be moved freely.



1.) Back, bottom, with max. seat height
2.) Back height increase max.: BH + 3 cm



3.) Back, bottom, with min. seat height
4.) Back height increase max.: BH + 7.5 cm

The back height is growable in two 3 cm steps with max. seat height. With min. seat height, the back height is growable in 1.5 cm steps by up to 7.5 cm.

- remove screws (pos. 1) completely on both sides
- mount back rest (pos. 2) into desired position
- tighten screw joints firmly

3.8 Adjustment of caster and rear wheel

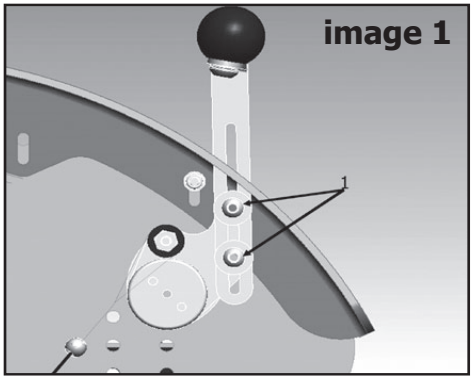
Because of its firm wheel base, Mio is free of adjustments concerning the caster–rear wheel–constellation.

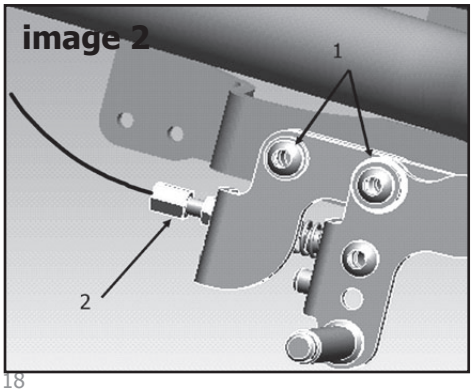
3.9 Brake

The brakes inherit an important safety function in your Mio. **Correct adjustments of the brakes are a vital prerequisite for its readiness to drive.**
Each Mio is equipped with two cable brakes in the clothing guards. They exclusively serve the purpose of keeping the wheels in a rest position. They are not designed to decelerate the wheelchair while driving. For this purpose, the handrims, or optionally the attendant brake, should always be used. Please be aware that aluminium-handrims may heat quickly due to friction.

ATTENTION

For your own safety, always check whether the brakes function correctly. Its function may be restrained by too little air pressure in the tyres, moisture, worn out profile and/or brake bolt, defective cable, and too much distance between the brake bolts and the tyres.





3.9. Standard brake

Brake adjustment

- check tyre air pressure of the rear wheels; inflate tyres to the indicated value if necessary
- if necessary, loosen screw joints of the cable brake (image 2, pos. 1)
- adjust brakes so the distance between the brake bolt and tyres is about 3 mm (technical alterations reserved)
- tighten screws firmly
- for vernier adjustments, readjust the set screw (image 2, pos. 2)
- check function with the securing support of an assistant

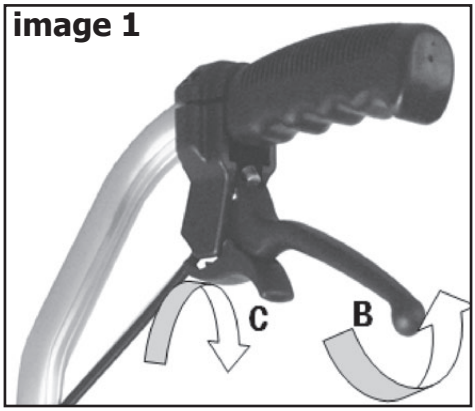
ATTENTION

On a ramp with 7° (12 %) incline, the rear wheels of the wheelchair with passenger must not slip with the locking brake tightened.

Adjustment of the brake lever height

- loosen both screws (image 1, pos. 1)
- place brake lever into desired position via the ball head
- retighten both screws

3.9.2 Attendant brake (optional)



The attendant brake can be used to decelerate while driving, provided that the tyre air pressure is correct and the brake bolt is not worn out (cf. also chapter 2.3). Via an additional brake cable, it activates the standard locking brake independently from the driver.

The adjustment follows the same instructions as for the standard brake described in chapter 3.9.1 Brake, standard.

ATTENTION

In the second indexed position of the hand brake lever (B), the brake must be firm enough to ensure that the rear wheels of the wheelchair with passenger do not slip on a 7° (12%) incline (see above).

To lock firmly, the latch lever (C) has to snap into the brake lever (B). To unlock, please pull the brake lever further which will release the latch lever automatically.

ATTENTION

Please mind that signs of wear may occur on the brake bolt. So please check the functional efficiency of your brake before each ride and have your brake bolt exchanged if necessary.

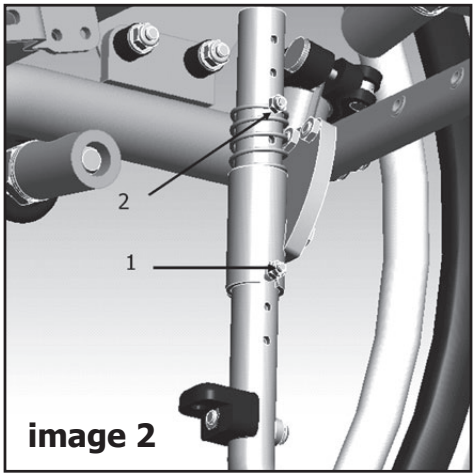
Please handle the tyre profile in the same way, for it, too, may wear increasingly under the influence of the attendant brake.

3.10 Anti-tippers

The anti-tippers prevent your wheelchair tipping backwards unintentionally. Correct adjustments are hence very important for the function of the anti-tipper. The correct distance to the ground is 2-5 cm.

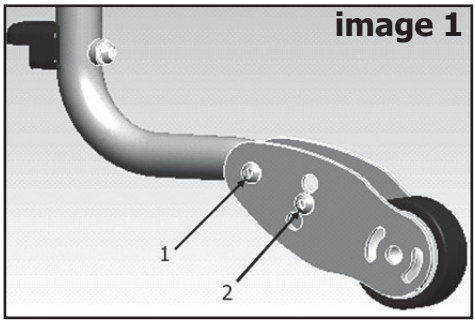
ATTENTION

Please also read the respective chapters of the SAFETY INSTRUCTIONS.



- measure current distance between the anti-tipper and the ground
- remove rear wheels
- remove screw joints (image 2, pos. 1+2) completely and insert them into suitable bores
- retighten screw joints (image 2, pos 1.)
- twist screw nuts (image 2, pos. 2) as far on the screws so they protrude min. 1 mm from the screw nuts
- check distance to the ground
- check function with securing support of an assistant

Further adjustments can be done via the small wheel at the back of the anti-tipper.



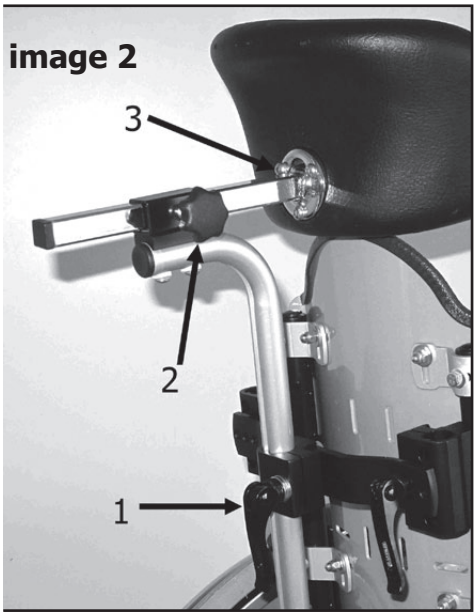
- loosen screws (image 1, pos. 1) on both sides
- remove screws (image 1, pos. 2) on both sides
- choose among the three holes and insert screws (pos. 2)
- retighten all screws

ATTENTION

Make sure to make the same changes of the anti-tippers on both sides!

3.11 Head rest (optional)

Our head rests may be adjusted in height, depth and angle.



Adjustment in height:

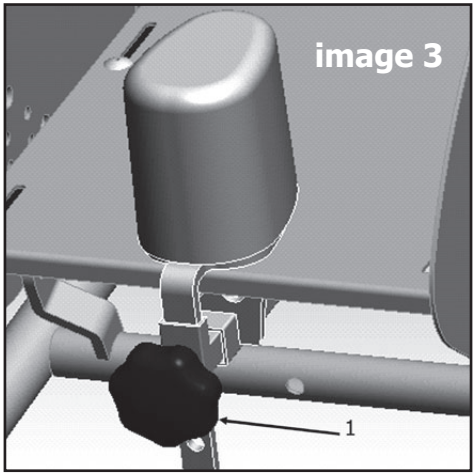
- loosen the control lever (image 2, pos. 1) and set it tight after reaching the desired position
- **Adjustment in depth:** loosen the star knob (image 2, pos. 2) and set it tight after reaching the desired position
- **Adjustment in angle:** loosen the three screws (image 2, pos. 3) slightly and tighten them after reaching the desired position

3.12 Abduction wedge (optional)

The abduction wedge is supposed to keep the thighs apart. For children with too much tonicity in their legs this is often beneficial in order to attain better overall tonicity. For some children it is only then that the wheelchair becomes acceptable and usable.

Depth adjustment
- loosen star knob (image 3, pos. 1)
- adjust desired position
- tighten star knob

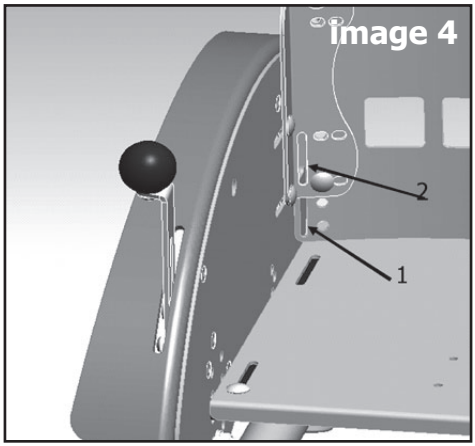
ATTENTION
Avoid taking the wedge with the wedge adapter out of the guide pipe completely.



Height adjustment
- remove star knob screw joint (image 3, pos. 1) completely
- adjust desired height
- tighten star knob

3.13 Pelvic belt

Mounting of the pelvic belt



Pull the free ends of the belt on both sides through the lower notches (image 4, pos. 1) and/or the upper notches (image 4, pos. 2) of the back. Link the belts on the rear. In order to obtain an advantageous position of the belt, make sure to mount it as low as possible.

3.14 Growth adaption

Back height adjustment
cf. chapter 3.7, p. 17

Seat depth adjustment
cf. chapter 3.6, p. 17

Seat width adjustment
cf. chapter 3.3 p. 14

4. Handling/Operation

The following indications on the operation of Mio in everyday life are directed to you as a user of the wheelchair and are supposed to help you to use the individual functions of the technical parts safely, competently and conventionally so you can profit from your wheelchair for a long time.

Please read the following indications on operation carefully and mind the suggestions on daily usage of your wheelchair.

4.1 Getting in and out

When getting in or out, please make sure that the locking brakes are tightened.

Have an assistant turn the casters forwards or drive backwards until the casters turn forwards; then close the locking brakes. This provides your wheelchair with extra safety from tipping when getting in or out.

Please avoid stepping on the foot rest because that might make your wheelchair tip forwards (exception as described in 2.3).

Do never lean on the clothing guard or the brake lever/-buttons inside the clothing guard when getting in or out for it may break.

To get in or out, you best lean on the handrims with both hands or as centric on the seat as possible.

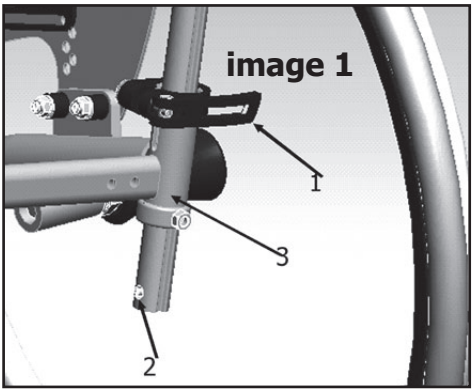
Please familiarise yourself with the limits of your wheelchair right from the beginning by – **essentially, in presence of an experienced assistant!** – carefully leaning towards all directions and perhaps holding a heavy object with your outstretched hand and concentrating on the point where the wheelchair starts tipping.

Please note that changes of the wheelchair's centre of gravity bring about different conditions. Familiarise yourself with them through appropriate tests – **again, only in the presence of an assistant!**

In the long run, you can only prevent dangers that you are well aware of! So please read our separate "General Safety Indications" carefully.

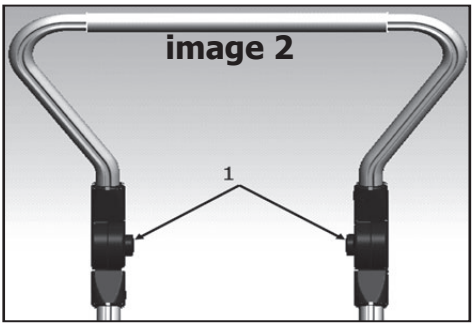
4.2 Extendable push handles / push bar (optional)

We offer three options to push Mio:
- extendable push handles
- single-hand push handle
- push bar



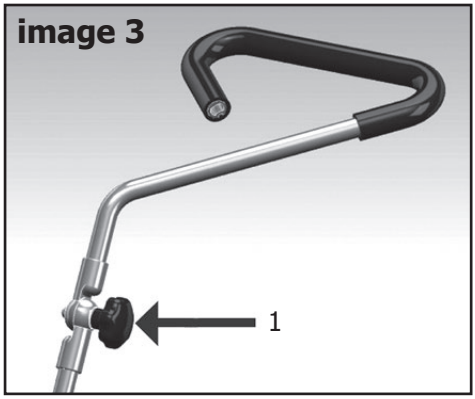
To vary the height of the push handles/push par, loosen the control lever (image 1, pos. 1) and place the handles to the desired height. Make sure to tighten the control lever after adjusting in order to be able to handle the wheelchair reliably. Do not attach any bags or the like on the handles, as this makes the wheelchair more prone to tipping.

Push bar



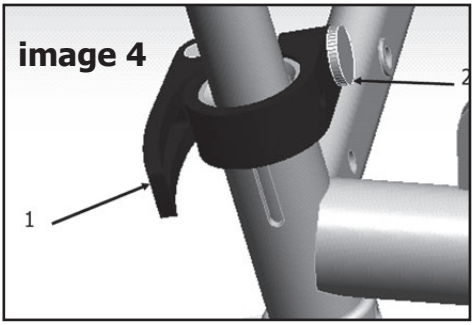
Additionally to adjusting the height and the distance between an attendant and the wheelchair, the push handle adapter offers the option of altering the grip angle.
To do this, push both buttons (image 2, pos. 1) of the angle adjustment device at the same time and turn the handle into the desired position.

Single-hand push handle (optional)



When playing with other children, it is strongly recommend to remove (or at least hinge away) the push handle, because the child might not able to anticipate the swivel radius and might thus involuntarily injure other children!
- loosen star knob screw (image 3, pos. 1)
- hinge handle downwards
- tighten star knob screw

Adjusting the tension force
- open control lever (image 4, pos. 1)
- the clamping force can be adjusted via the set screw (image 4, pos. 2)
- close control lever
- the push handle must not be movable in the closed position



Removing the push handles/ push bar

- open control lever (left hand side image 1, pos. 1)
- push stand spring (left hand side image 1, pos. 2)
- keep stand spring pushed and, simultaneously, pull the push handle out of the guide pipe (left hand side image 1, pos. 3)

Inserting the push handles/ push bar

- open control lever (left hand side image 1, pos. 1)
- push stand spring (left hand side image 1, pos. 2) and insert push handle, turn it 90° counter clockwise, into the guide pipe (left hand side image 1, pos. 3)
- approximately halfway through (you will feel a blocking), turn the push handle back 90° (clockwise), so it may slide into the clamp unhindered
- close control lever (left hand side image 1, pos. 1)

ATTENTION

When adjusting the push handles, make sure that the stand spring (left hand side image 1, pos. 2) is always positioned below the push handle retainer (left hand side image 1, pos. 3). The retainer prevents the push handle from sliding off the bracket.

ATTENTION

Before pulling a person sitting in a wheelchair over an obstacle with the aid of the push handles or push bar, please check if the handles are connected firmly to the wheelchair. The handles might loosen and thus cause considerable risk moments. Please also check whether the control lever and the set screw are connected firmly to avoid safety risks and to prevent losing the set screw.

ATTENTION

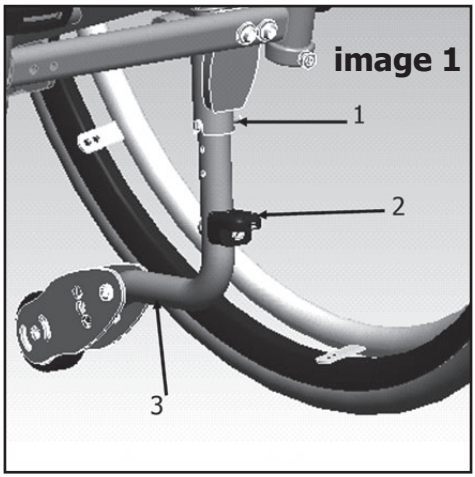
Do not attach any bags or the like to the push handle/push bar for the wheelchair may tip backwards due to the altered centre of gravity.

PLEASE NOTE

Keep in mind that the swivel arm may influence Mio's proneness to tipping.

4.3 Anti-tipper

The anti-tipper is stored in a rotatable position within the frame adapter (image 1, pos. 1).



To activate it, push it down with the aid of the step lever (image 1, pos. 2), turn it backwards by 180°, and release it so it can snap into the positioning slot. To deactivate, push the anti-tipper on the pipe (image 1, pos 3) downwards, turn it 180° frontwards, and release it so it can snap into the positioning slot.

ATTENTION
Please also read chapter 2.3 of the SAFETY INSTRUCTIONS.

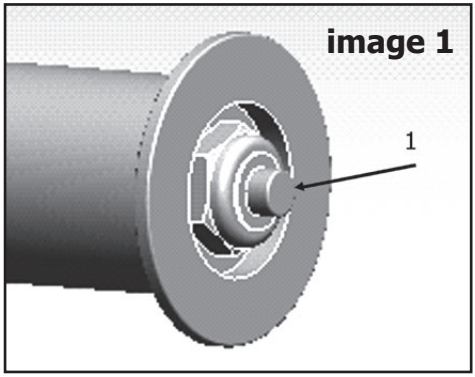
ATTENTION
Please make sure that the extension is always engaged in its end position because a loose anti-tipper may lead to injuries in the assistant's ankle area.

PLEASE NOTE
To surmount barriers or obstacles, the anti-tipper may have to be swung inwards by the assistant and swung out afterwards because otherwise, the wheelchair might rest on its anti-tipper.

4.4 Wheels with quick-release-axles

The quick-release-axles provide that all of our rear wheels are easily demountable and attachable without using any tools.

No person is allowed to be seated in the wheelchair while mounting or demounting. The wheelchair must be placed – supported and tilt resistant – on even, firm ground and it must be secured against rolling away and tipping over.



- activate the anti-tipper and loosen the locking brake on one side
- push the arrestor button (image 1, pos. 1) in the wheel hub
- remove or attach the rear wheel with the arrestor button pushed

ATTENTION
After each installation, please check whether the wheel is fitted firmly by releasing the button and trying to pull the wheel out of the axle. The arrestor button must protrude the hub by several millimetres.

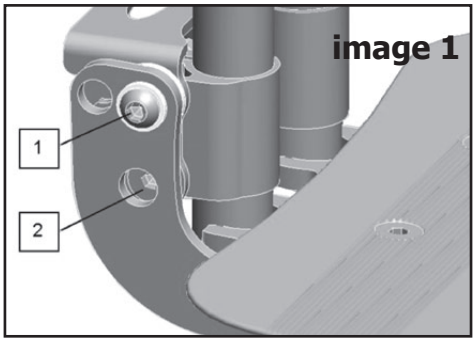
Please make sure that the quick-release-axle with the arrestor button and arrestor bolt is always clean. Sand, earth, dirt, moisture, and ice may lead to malfunctions of the snap-action mechanism, which inherits a considerable safety risk.

4.5 Foot rest, hinged (optional)

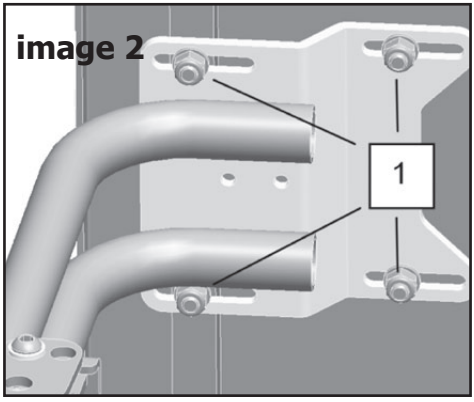
To get into your wheelchair, if possible, hinge the footrest backwards (after having arrested the locking brake!) so you can get closer to the seat. As soon as the child is seated safely in the wheelchair, lift their legs, put the foot rest back to the front, and position your child's feet; use heel holders if necessary (optional).

Lower leg length adjustment

- loosen screws (image 1, pos. 1+2) on both sides
- choose position; tighten screws (pos. 2) firmly
- tighten screws (pos. 1) just as much so the foot rest can still be hinged upwards
-
-



Depth adjustment

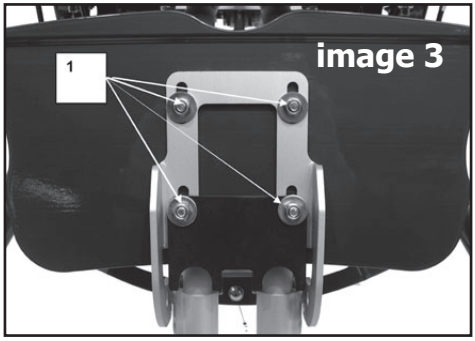


- loosen screws (image 2, pos. 1)
- place leg support retainer into desired position
- tighten screws

Angle adjustment

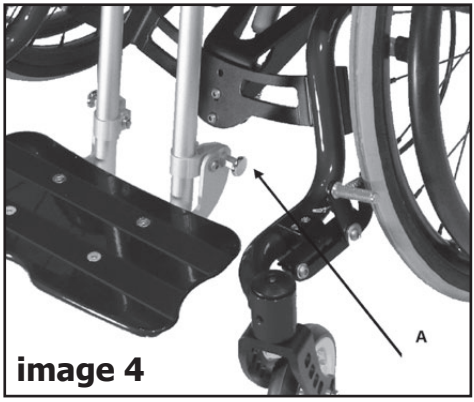
ATTENTION

By altering the distance between the foot rest and the guide pipes (image 3, pos. 1), you may change the angle of the footrest by ± 15°.



- loosen screws (image 3, pos. 1)
- place foot rest into desired position
- tighten screws

Interlock (optional)



- pull out spring bolt (image 4, pos. A) and turn by 90°
- hinge foot rest backwards
- turn spring bolt by 90° again until it has snapped into the slot
- to open the interlock, please proceed analogically

ATTENTION

Do not EVER let your child get into the wheelchair via the foot rest for it may tip forwards and harm your child considerably. (Exception as described in 2.3.)

ATTENTION

When using lockable foot rests, please make sure that the spring bolt is snapped firmly when interlocking. Do not start your ride before you are certain about that!

Also, please make sure not to lean too far out of the wheelchair when (un-)locking the foot rest. You may fall out of the wheelchair! So please have an assistant help you.

4.7 Locking brake

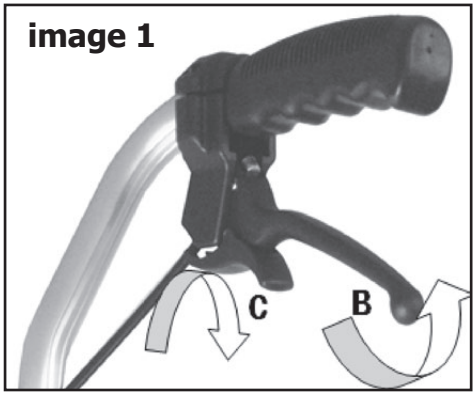
4.7.1 Locking brake, standard

Each wheelchair is usually equipped with two locking brakes. They are to be used exclusively to secure the wheels in a rest position. Secure the wheelchair by pushing the control lever forwards. Push the control lever backwards, and you wheelchair is ready to ride again.

ATTENTION

Make sure to read the respective passages in chapter 2 "Safety instructions"!

4.7.2 Attendant brake



The attendant brake can be used to decelerate while driving – provided that the tyre air pressure is correct and the braking bolt is not worn out. Moreover, our attendant brake has a locking mechanism with which it can be blocked at the maximum braking state.

To block it firmly, the locking lever (image 1, pos. C) must snap into the brake lever (image 1, pos. B). To release, please pull the brake lever further so the locking lever will automatically be released.

ATTENTION

Make sure that no body parts (fingers etc.) are clamped by the braking bolt or brake lever when operating the brake.

4.8 Therapy table (optional)

The therapy table can be adjusted to a wide variety of needs.

Height adjustment

Loosen screw (image 1, pos. 1), place therapy table into desired position, tighten screw firmly.

Depth adjustment

Loosen clamping lever (image 1, pos. 2), place therapy table into desired position, tighten clamping lever firmly.

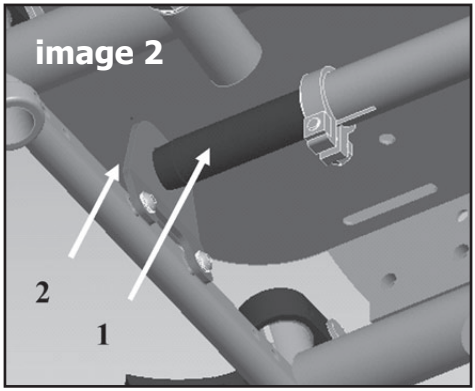
Angle adjustment

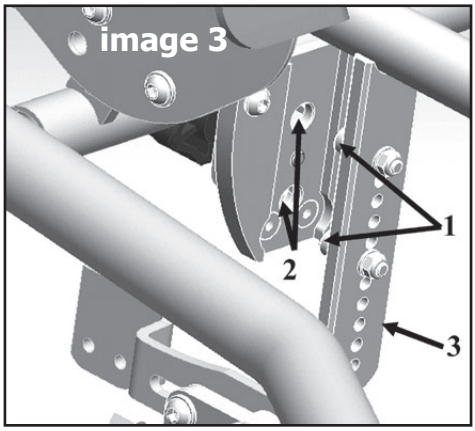
Loosen clamping lever (image 1, pos. 3), place therapy table into desired position, tighten clamping lever firmly.

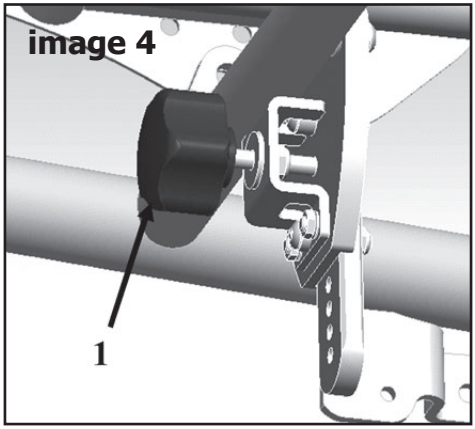
4.9 Outdoor Front End (optional)

Improves the handling characteristics for passive and active driving outdoors.

- activate locking brake
- tilt wheelchair slightly
- insert cone tube (image 2, pos. 1) of the outdoor-front-end into the holding plate (image 2, pos. 2) at the wheelchair frame as far as it will go
- at the same time, the bushings (image 3, pos. 1) of the height adjustment device (image 3, pos. 3) must be inserted into the locating bores (image 3, pos. 2) of the retainer plate
- tighten star knob (image 4, pos 1.) firmly







Please check whether the construction is firm and secure in the fixture and whether it is locked safely.

To remove the outdoor-front-end, please proceed in reversed order.

4.10 Loading and transportation

For transportation in vehicles, the child/user has to leave the wheelchair and sit down on a suitable seat in the vehicle. For transportation please mind the following points:

ATTENTION
Please arrest Mio via suitable measures (e.g. belts) in the vehicle in order to prevent it (or parts of it) from injuring the passengers in case of sudden braking!

To make the wheelchair as compact as possible, please push the extensible push handles (if present) as far down as possible and secure them in that position. Please proceed analogically with the push handle adapter, then turn the adapter to the back and secure it again.

Finally, you can remove the rear wheels. Release the locking brake and push the small button that protrudes the centre of the quick-release-axle and pull out the wheel with the button pressed.

ATTENTION
Please note that the quick-release-axles are very sensitive. So please avoid dirtying or damaging them.

ATTENTION
When reinserting the wheels, please make sure that the quick-release-axle is fitted firmly. The button of the quick-release-axle must protrude the axle by several millimetres after snapping in place.

4.11 Safety of transportation

After storing Mio in the transportation vehicle, please proceed the following way:

- If you do not remove the rear wheels, please activate the locking brake!
- Store all demounted parts of the wheelchair safely in the vehicle so they cannot injure anyone in case of sudden braking.
- Secure the wheelchair in the vehicle with tension belts. Please only clamp the tension belts on the frame parts. The foot rest, side guards, back or seat adapter are not suitable for this.
- Before transportation, please gather information from your passenger car merchant on safe securing of the wheelchair with clamp ears or other suitable safety measures in your passenger car.
- Store loose objects, such as sticks, bags, etc. safely, so they cannot spin around in the car and injure someone.

4.12 Transportation of the wheelchair as seat in a passenger vehicle

ATTENTION
Risk of injury through impermissible usage in a passenger vehicle:

Transporting a person sitting in a wheelchair in a vehicle is always a considerable safety risk for both the wheelchair user as well as the co-passengers!

The model Mio has successfully been tested for dynamic crash-stability (ISO 7176-19) by the manufacturer. Consequently, it is officially released as a seat for transportation in a vehicle.

You can find further information from your specialist dealer or at www.sorgrollstuhltechnik.de.

INDICATIONS OF LIABILITY
SORG Rollstuhltechnik GmbH + Co.KG does not assume liability for damage of people and material caused by transportation in a vehicle.

5 Maintenance

5.1 Cleaning and tendance

PLEASE NOTE
Never treat the wheelchair with a high-pressure cleaner! Please use silicon-free, water-based cleaning and care supplies.
The indications on application given by the manufacturer are to be followed. Do not use any aggressive cleaning supplies such as dissolvers or hard brushes etc.

SURFACE COATING
The high quality finishing of the surface guarantees ideal corrosion protection.

To tend the finish, we recommend using customary branded finish care products. Should the coating nevertheless be damaged through scrapers, crushes, etc., you may correct those spots

with a touch up applicator available in the specialised trade (apart from metallic and dormant colours).

PLASTIC PARTS

The clothing guard and similar parts consist of high quality plastics. Only clean these parts with warm water and neutral cleaning agents or soft soap.

ATTENTION

When using customary plastic cleaners, the indications on application given by the manufacturer are to be followed.

PADS AND COVERS

The covers of the moulded firm seat and back parts may be removed with the zippers. We recommend washing them regularly with a mild detergent and low temperatures in the washing machine.

PLEASE NOTE

Please clean other pads and covers (e.g. from seat shells) with warm water and hand flush fluid. Many stains may be removed with a sponge or a soft brush.

In case of doubt, please consult the medical supply store which built your seat shell for advice on cleaning the cover.

FRAME

The frame and the wheels should regularly be cleaned wetted with a mild cleaning agent. Please dry well afterwards.

CASTERS

Please remove rough dirt from the casters regularly, clean them wetted with a mild cleaning agent and dry well. Please grease the wheel bearings and similar parts with customary lubrication greases.

PLEASE NOTE

Please check the carriage for corrosion damage as well as other damage regularly. Oiling all versatile parts lightly and regularly obviates such damages and enables you to profit from your wheelchair for a long time.

5.2 Disinfection

For disinfection water-based agents should be used, such as: Terralin, Quartamon, Med or Sagrotan.
The indications on application given by the manufacturer are to be minded and followed strictly.

PLEASE NOTE

Before disinfecting your wheelchair, please clean all pads and handles in the way indicated.

5.3 Inspection

For reasons of safety and to prevent accidents resulting from abrasion not recognised on time, yearly inspection is designated under normal operating conditions. It is to be conducted according to the following maintenance manual.

According to applicable law, this inspection is part of the commitment of the benefactor towards the user of the wheelchair and has to be borne by him. For detailed coordination, we recommend you arrange agreements with your benefactor in the forefront of supplying medical aids.

Please transfer these works to a professional repair shop qualified for this purpose in order to guarantee your wheelchair to have the highest degree of safety and reliability possible in any situation.

The staff of the professional repair shop is familiar with the technique of the vehicle, possess suitable tools and will use original replacement parts. Beginning abrasion can be recognised and prevented by them in due time.

Maintenance

The following maintenance manual presents (considering possible reuse) a mandatory guideline for the conduction of maintenance work.

It gives no information about the extent of work actually necessary and observed on the vehicle.

ATTENTION

Being a participant in public traffic, the wheelchair driver is responsible for maintaining the vehicle fail-safe state.

Insufficient or neglected care and maintenance of the wheelchair pose a significant safety risk and automatically lead to limitations of the product liability.

5.4 Checklist and maintenance

WHEN	WHAT	COMMENTS
Before each use	**Check wheels/quick-release-axles for firm fit** You must not be able to pull the wheel out of the quick-release-axle. The arrestor button must stick out of the hub several millimetres (1 mm=0.4 in).	Conduct yourself or with the help of an experienced assistant.
	Check air pressure according to the manufacturer´s indications on the tyre	Conduct yourself or with the help of an experienced assistant. Please resolve insufficient air pressure (indications on the tyre) and/or dirt by yourself.
	Check brakes for flawless function Close both brakes tightly. With locked brakes, you must not be able to push the wheelchair. Check cable pulls for damage.	Conduct yourself or with the help of an experienced assistant. If the brake does not take proper effect (worn-out profile or braking bolt, loose brake lever etc.), immediately contact a medical supply store for qualified maintenance work.
	Check all screw joints for flawless fit	Please check: - fixation of seat support frame - quick-release-axle fitting for wheel adapter - fixation foot rest - fixation of seat and back plate / seat shell or belts - connection between seat adapter and back - fixation wheel guard cover - fixation anti-tippers
	Check frame tubes for damage	If the welded seams are deformed and/or fissured, immediately contact a medical supply store for qualified maintenance.
Every 4 weeks	**Retighten all screw joints** With daily usage leading to permanent vibration, the screws may loosen. This is why we recommend to retighten **ALL** screw joint systematically once a month.	Conduct yourself or with the help of an experienced assistant.
	Check tyre profile	Conduct yourself or with the help of an experienced assistant.
Every 2-3 months (depending on driving performance)	**Clean and grease all versatile parts** All moving parts, such as brakes, brake levers, quick-release-axles, caster bearings, anti-tipper adapter etc.	Conduct yourself or with the help of an experienced assistant. Clean all components thoroughly before greasing and remove leftover of old oil. Then apply some drops of oil and wipe away superfluous oil.
	Retighten spokes	To be conducted by the medical supply store!

WHEN	WHAT	COMMENTS
Every 6 months (depending on driving performance)	**Check frame for cracks, corrosion and damage**	To be conducted by the medical supply store! Please remove seat and back unit as well as leg support and side guards / clothing guard for better exterior visual control.
	Maintain locking brake	To be conducted by the medical supply store! Inspect brake for symptoms of fatigue or abrasion.
Every 12 monts (depending on driving performance)	**Change bowden cable of the bowden cable brake**	To be conducted by the medical supply store!

5.5 Checklist yearly inspection

Regular, yearly inspection conducted by a qualified medical supply store is an essential component of the wheelchair's product liability/safety and long service life. Moreover, the inspections serve as verification of the service ability for the benefactor in case of reusage.

PREPARATORY WORK
Please remove the moulded seat and back parts, the push handles, the wheel guard cover and the foot rest. If necessary, please clean the wheelchair or individual parts of it prior to inspection.

VISUAL INSPECTION
❑ Check frame, mounting parts and accessories for damage, defects in paint work and corrosion.

GENERAL CHECK-UP
❑ Check all fixing screws for firm fit and retighten if necessary.
❑ Check fixation of all mounted parts and readjust if necessary.
❑ Check fixation of all plastic parts, handles, mounted parts, spoke guard covers etc. and readjust if necessary.
❑ Check state of tyres and cover as well as tyre pressure and valves; replace if necessary.
❑ Check all spring-loaded devices (quick-release-axle, stand spring on push handle, etc.) for functional efficiency and replace if necessary.

CARRIAGE
❑ Check fixation of casters and rear wheels.
❑ Check functional efficiency of the quick-release-axles.
❑ Check tyres, air pressure and valve, exchange if needed
❑ Check caster bearing, caster fork and caster mounting bracket for condition, functional efficiency and running characteristics.

BRAKES
❑ Check brakes for functional efficiency.

ÖILING AND GREASING
❑ Clean and grease all pivotal points of control levers and versatile parts as well as all bearings.

FINAL CHECK-UP
❑ General functional check-up of all mechanical adjusting devices.
❑ Additional braking, steering and driving tests on upgrade and downgrade paths.

ATTENTION
If required, the reparations necessary are to be conducted and documented on p. 40 f.

5.6 Reparations

Please do never conduct reparation and/or maintenance work yourself, but turn trustfully to your medical supply store. The staff there is introduced to the conduction of such work, possess all necessary tools and trained workers.

5.7 Service

If you have any questions or need help, our qualified rehab consultants are happy to assist you. Or turn to your specialised trader, who is trained according to our regulations and who is capable of resuming consultation, service as well as reparations.

5.8 Replacement parts

Original replacement parts are to be used exclusively! They are available at your medical supply store.

PLEASE NOTE

Parts from other companies may cause faults and become a safety risk.

Lists of replacement parts with the respective order numbers and drawings are available at your specialised trade and may be requested from us.

ATTENTION

Because of the risk of accidents, security-relevant parts or component groups are only to be installed by a medical supply store qualified for this purpose.

For correct delivery of the replacement parts, the respective serial number of the wheelchair needs to be indicated! It can be found on the type plate on the frame of the wheelchair.

For each altering or modification of the wheelchair by your medical supply store, the respective information, like e.g. mounting and/or application indications with the date of the altering are to be enclosed to this user manual.

5.9 Disposal

As a general rule, the disposal of the wheelchair must conform to the respective national legal regulations. You may seek information about local disposal organisations from your urban or communal administration.

Our packing materials are 100% recyclable. Metal parts may be put to scrap metal recycling or sent to our factory.

Plastic and textile parts may be recycled as well.

5.10 Reuse

Before every reuse, the wheelchair must undergo complete, thorough and qualified inspection and disinfection.

PLEASE NOTE

The measures necessary for reuse are to be conducted according to a validated hygiene plan.

5.11 Tyre change

With a little bit of technical skill and suitable tools, you can fix a flat tyre yourself. It is advisable to always carry a reparation-set and an air pump for emergencies. You may purchase suitable air pumps at your specialised trade. An alternative would be a puncture repair spray which fills your tyre with setting foam (available at the specialised trade).

Demounting:

- in case of a flat tyre, demount the tyre carefully from the rim with suitable mounting tools
- make sure not to damage the rim or the tube in the process

Reparation:

- repair the tube according to the indications given on the reparation-set, or replace it with a new one
- examine the rim and the interior of the tyre for foreign objects which might have caused the flat tyre
- only use rim bands which are in perfect condition to protect the tube from damage by spoke ends

Mounting:

- push the rim band over the valve and place the valve into the rim
- unscrew the valve screw nut. Now you can draw up the rim band effortlessly
- make sure that all spoke ends are covered
- now push the lower tyre part over the bead of the rim. Inflate the tyre until round
- insert the weakly inflated tube into the tyre cover
- check the tube for smooth fit. Then you can easily mount the upper part of the tyre behind the bead of the rim with both hands. Start with the part of the valve which is faced away.

Inflation:

- check whether the tube is perfectly clamped

between tyre cover and rim
- check fit of the valve
- first, inflate the tyre just as much so you can still impress it with your thumb
- check the fit of the tyre on the rim. If the tyre cover is not centric on the rim, deflate the tyre a bit, and readjust it
- then inflate the tyre to maximum operating pressure (cf. tyre cover) and close the valve with the protection cap

6. Technical data

6.1 Measures and dimensions

Dimension tolerance ±5%

Abbreviations:
SW = Seat width
SD = Seat depth
BH = Back height
SH = Seat height
LLL = Lower leg length

Data
Model: Mio
German Aid Index No°:
18.99.02.1xxx submitted
Typ: 910
(type plate on front cross brace)

SW: 18-30 cm (7.1-11.8 in) in 2-cm(.8 in)-steps (plus extension)
SD: 18-30 cm (7.1-11.8 in) in 2-cm(.8 in)-steps (plus extension)
BH: 17.5-35 cm (6.9-13.8 in) in 2.5-cm(1 in)-steps (plus extension)
LLL: Retro frame: 10-30 cm (4-11.8 in)
Taurus frame: 15-35 cm (5.9-13.8 in)
Back angle: ± 10°

(Seat heights WITHOUT cushion!)
Seat heights (20" wheels): 34.0 cm – 38.5 cm
Seat heights (22" wheels): 36.0 cm – 40.5 cm
Seat heights (24" wheels): 38.5 cm – 43.0 cm

Cushion thickness: 3 cm (1.2 in) or 5 cm (2 in)
Thickness of seat shell:
front 5 cm (2 in), back 3 cm (1.2 in)

Wheels: 20", 22", 24"
Types: Standard-, profile- or lightweight wheels, profile wheels with integrated handrims
Tyre types: tyre equipment in sizes 25-451, 25-489, 25-540
Air pressure: mind the indications on the tyres (6-8 bar)

Casters: 4", 5", 5.5"
Types: transparent with LEDs
Solid rubber black, alu rims
PU grey, synthetic rims

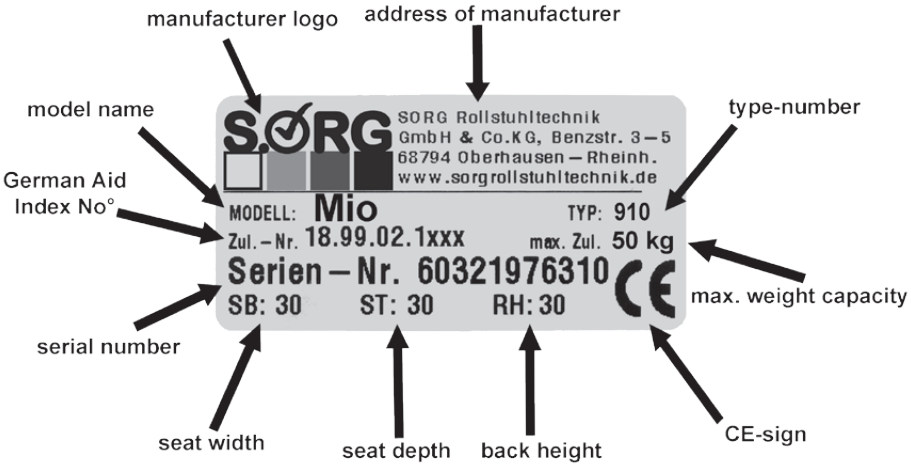
Camber 9°
Tolerable inclination 12% (7°)
Tolerable decline 12% (7°)
Tipping safety 12% (7°)
Turning circle 1020 mm (40.16 in)
Tolerable load max. 50 kg (110.2 lbs)
Empty weight min. 6.9 kg (15.2 lbs)
Width: Min. SW + 310 mm (12.2 in)
Max. SW + 365 mm (14.4. in)

Length (without push handles!)
at 20" = 630 mm (24.8 in)
at 22" = 695 mm (27.4 in)
at 24" = 745 mm (29.3 in)
Height (without push handles!)
500 mm – 875 mm (19.7-34.5 in)
Support point: back cross brace
Weight of heaviest part: Rear wheels 1.2-2 kg (2.7-4.4 lbs)

What effect does the demounting of attachment parts (which can be removed without tools) have on the wheelchair?
Foot rest: transportation and access to wheelchair
Risik: wheels clamping the legs
Pillow: hygiene
Risik: pressure mark
Head rest: transportation
Risik: loss of head rest/lack of support
Rear wheels: transportation
Risik: loss of wheels/lack of use

6.2 Meaning of labels

The elements of the type plate on the axis of Miro have the following meanings:



This product conforms to the EC guidelines 93/42/EEC for medical aids.

7. Warranty

Warranty bond
Quality assurance system

In producing our wheelchairs, we make sure to maintain the highest quality possible and to conform to all relevant DIN-standards and EC-guidelines. Therefore we had our company registered according to ISO 9001:2000 in 2003 and we regularly undergo the required follow-up audits.

All our wheelchairs, mobile standing frames, and seat shell base frames meet the requirements of Medical Aid Act and possess the respective CE marking (customized products excluded).

Durability

According to the criteria of rehaKIND®, international association children and adolescent rehab incorporated society, regarding quality and safety in the case of reusing rehabilitation products, we as producer can reliably guarantee a durability of 5 years; presupposed that the wheelchair is exposed to normal forces and that it is maintained regularly by a specialised trade.

Beyond this period, we guarantee the provision of replacement parts for further 2 years (special mountings excluded).

Service life

The term "Service life" describes the period of time in which a product is in permanent use. Hence periods of storing at the benefactor's and/or specialised trade are not part of the service life.

"Durability", on the other hand, is the period of time which we define based on our experience and the technical factors; this period of time may not be exceeded when reusing the product.

Products in reuse are subject to increased strain. Therefore, we recommend, when reusing Vector, not to extent a further service life of 3 years in line with the durability.

However, we are pointing out that you can influence this durability directly, for it is significantly dependent on the maintenance of the product.

In the best case, the functional efficiency may reliably be extended beyond the defined durability.

JURISTIC CONDITIONS OF WARRANTY

I. Subject of warranty

This warranty applies to wheelchairs, mobile standing frames, and seat shell base frames by the company SORG Rollstuhltechnik GmbH + Co.KG (in the following abbreviated to: SORG).

Legal claims associated with warranties for defects of the end consumer towards the medical supply store or other service providers responsible for the provision of the patient are not affected.

II. Extent of warranty

SORG grants a period of warranty of 5 years after first use on replacement parts and diagonal braces, considering the conditions in section III and under disqualification according to section IV. The warranty grants the end consumer claims on receiving replacements and subsequent improvements according to the requirements of paragraph 2.

If production and/or material defects occur 2 years after first use, SORG may replace the entire wheelchair, or it may replace or repair faulty parts of the frame and/or diagonal braces. Hence, SORG is obligated to replace defected parts only. Further claims for reduction, compensation, or rescission of the contract are not granted.

III. Claim conditions

The following points need to be fulfilled in order to assert claims for warranty payments:

- the wheelchair must be in first use;
- the wheelchair must have been adjusted a qualified specialised trade;
- the transduction of complete provision must have been conducted by the specialised trade with an attached nonconformity report;
- changes on the wheelchair must not exceed the adjustments intended by SORG, unless they have been arranged with SORG in the individual case;
- our products may exclusively be repaired and extended by qualified specialists using original replacement parts only.

IV. Exclusion of warranty

Under the following circumstances we exclude claims against us:

- if the conditions for claims according to section III are not met;
- if the reduction of utilisability of the wheelchair is the result of improper usage, especially in

case of unarranged and prohibited modifications;
- if the reduction of utilisability of the wheelchair is the result of normal abrasion;
- if the reduction of utilisability of the wheelchair is the result of changes in the physical condition of the patient, e.g. due to significant increase in weight;
- if the reduction of utilisability of the wheelchair is the result of high violence or if the wheelchair has been vandalised;
- if SORG assesses that the instructions of maintenance and usage have not been followed;
- if SORG determines that the maintenance regulations and instructions have not been complied with.

V. Liability

Sorg Rollstuhltechnik GmbH & Co.KG does not warrant in case of negligence and is not liable for voluntary acting of auxiliary persons. Incidentally, the claims for replacements restrict to damages predictable at the outset of the conduction of the benefits.

VI. Secondary Regulations
- Cases of warranty are to be indicated in an appropriate period of time;
- Replaced items must be handed back to SORG Rollstuhltechnik GmbH + Co. KG;
- Warranty benefits are to be fulfilled in Oberhausen-Rheinhausen, Germany;
- These warranty conditions are liable German civil and commercial law.

VII. Period of warranty for repairs

The period of warranty for repairs expires along with the warranty of the wheelchair; however, it runs for at least 1 year.

VIII. Complaint

In case of complaint, please send the following warranty form to us.

When sending back your wheelchair, please remember to attach the invoice number, job number/delivery note number as well as a short description explaining how the incident came about.

This way, you may help us to prevent the respective error in the future. You will find the indications necessary on the type plate.

IX. Delivery damages

Deliveries must be checked for possible damage **immediately on reception and in the presence of bearer (!)**; they have to be reported to the carrier and us immediately! Otherwise, no claims against them or us can be enforced.

Ask the carrier for their „data" (copy of their driver's licence or the like) so the transport may be reconstructed accurately if necessary. This conforms to the general conditions of the carrying trade and the current legal practice.

The 5 year warranty begins with the date of production.

WARRANTY FORM

Please fill in and, if necessary, make a copy and send in.

Warranty

Model

Date of delivery

Serial number

SW/SD/BH

Company stamp

Please glue in the duplicate of the type plate here.

CE

This product conforms to the EC guidelines 93/42/EEC for medical aids.

Our staff has constructed and examined this wheelchair most thoroughly for you! For this we bail with our signature.

Service technician:

Date Signature

Controller:

Date Signature

8. Service book

8.1 Maintenance due every 6 months

Maintenance at issue:	**Check and readjust all screw joints including spokes; check and, where needed, readjust locking brakes/drum brakes; check and readjust all frame parts and welded joints**		
Date, Stamp medical supply store, Signature			
Date, Stamp medical supply store, Signature			
Date, Stamp medical supply store, Signature			
Date, Stamp medical supply store, Signature			

8.2 Yearly inspection

Yearly maintenance	**According to check list on p. 33 f.**		
Date, Stamp medical supply store, Signature			
Date, Stamp medical supply store, Signature			
Date, Stamp medical supply store, Signature			
Date, Stamp medical supply store, Signature			

Retailer information

Your specialized trade

Company Stamp

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